

I. Aquatic Conservation Strategy Goals

1. Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations and communities are uniquely adapted.
2. Maintain and restore spatial and temporal connectivity within and between watersheds. Lateral, longitudinal, and drainage network connections include floodplains, wetlands, upslope areas, headwater tributaries, and intact refugia (a relatively isolated and/or uncommon area or habitat for organisms that are habitat specialists). These connections must provide chemically and physically unobstructed routes to areas critical for fulfilling life history requirements of aquatic and riparian-dependent species.
3. Maintain and restore the physical integrity of the aquatic system, including shorelines, banks, and bottom configurations.
4. Maintain and restore water quality necessary to support healthy riparian, aquatic, and wetland ecosystems. Water quality must remain within the range that maintains the biological, physical, and chemical integrity of the system and benefits survival, growth, reproduction, and migration of individuals composing aquatic and riparian communities.
5. Maintain and restore the sediment regime within reference variability. Elements of the sediment regime include the timing, volume, rate, and character of sediment input, storage, and transport.
6. In areas where natural flow conditions exist, work to maintain in-stream flows. Where opportunities exist, actively restore in-stream flows sufficient to create and sustain riparian, aquatic, and wetland habitats and to retain patterns of sediment, nutrient, and wood routing. The timing magnitude, duration, and spatial distribution of peak, high and low flows must be protected.
7. In meadows and wetlands, maintain and restore the timing, variability, and duration of floodplain inundation and water table elevation.
8. Maintain and restore the species composition and structural diversity of plant communities in riparian areas and wetlands. The purpose is to provide adequate summer and winter thermal regulation, nutrient filtering, appropriate rates of surface erosion, bank erosion and channel migration and to supply amounts and distributions of large or coarse woody debris sufficient to sustain physical complexity and stability.
9. Maintain and restore habitat to support well-distributed populations of native plant, invertebrate, and vertebrate riparian-dependent species.

II. Framework for Watershed Management

1. Use the goals as a basis for identification and prioritization of areas (subwatersheds, basins, etc.) for restoration activities.
2. Identify the processes and stressors leading to the decline of the system.
3. Determine realistic restoration goals.
4. Develop methods to reverse or mitigate the decline of the system.
5. Develop easily observable measures of success.
6. Develop practical techniques for the implementation of specific actions to achieve restoration goals.
7. Monitor key system variables and practice adaptive management.
8. Document and communicate techniques for inclusion in other land use planning.

III. Examples of Forest Service Watershed Restoration Projects

1. Evaluation of watershed and stream conditions leading to the closure and obliteration of roads and improvements of culverts and stream crossings.
2. Restoration of riparian vegetation following livestock grazing management reevaluation.
3. Channel restoration of historically degraded channels from mining.
4. Identification of special aquatic and riparian habitats, e.g. springs, fens and bogs, and implementation of protective measures such as fencing and relocation of recreation sites.